

SWEES

SPV HB Series

Solar Photovoltaic Hybrid Bi-directional Inverter

- HB 3000
- HB 5000
- HB 10000

Features

- Multiple operation modes: Grid Tie, Stand-alone and Grid-Tie with back-up
- Micro processor controlled technology
- Output - Pure sine wave form
- Built-in MPPT solar charger
- Generator compatibility
- User friendly LCD Display
- User adjustable charging current
- Self-consumption and Feed-in to the grid
- Programmable supply priority for PV, Battery or Grid
- Built-in timer for various mode of on/off operation
- Multiple communication for USB, RS-232, Modbus and SNMP
- Monitoring software for real-time status display and control

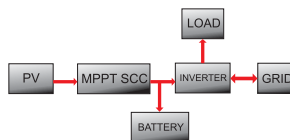


System Architecture

Grid power available

PV available(Strong)

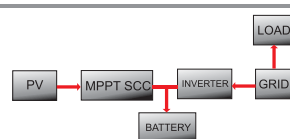
- PV charges the battery, the remaining power is fed into the grid or load
- Grid may sink or pull power



Grid power available

PV available (Weak)

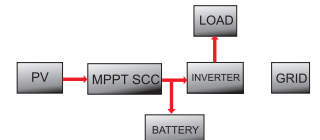
- Grid supplies the loads power
- PV and grid both charge the battery



Grid power unavailable

PV available(Strong)

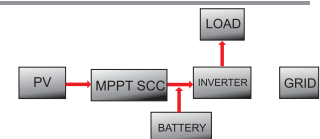
- Inverter disconnected with grid
- PV supplies the load power, the remaining power charges the battery



Grid power unavailable

PV available (Weak)

- Inverter disconnected from grid
- PV and battery both supply the load power



Technical Specifications:

MODEL	HB 3000	HB 5000	HB 10000
RATED POWER	3000 W	5000 W	10000 W
PV INPUT			
Maximum DC Voltage	500 VDC	310 VDC	900 VDC
MPP Voltage Range	250 VDC - 450 VDC	180 VDC - 230 VDC	300 VDC - 900 VDC
DC Nominal Voltage	360 VDC	220 VDC	720 VDC
Start-up Voltage / Initial Feeding Voltage	116 VDC / 150 VDC	150 VDC	320 VDC / 350 VDC
Maximum Input Current	13 A	30 A	25 A
GRID / UTILITY INPUT (AC)			
Normal AC Voltage	230 VAC	230 VAC	400 VAC (P-P)
Acceptable Voltage Range	184-265 VAC	184-265 VAC	184 - 265 VAC
Maximum Input Current	20 A	30 A	25 A
GRID OUTPUT (AC)			
Normal AC Voltage / Range	230 VAC / 184-265 VAC	230 VAC / 184-265 VAC	400 VAC (P-P) / 184 - 265 VAC
Maximum Feeding Power	3000 W	5000 W	10000 W
AC Grid Frequency Range	47.5 - 50.2	47.5 - 52.5 Hz	47.5 - 51.5 Hz or 59.3 - 60.5 Hz
Nominal Output Current	13.6 A	22 A	14.5 A per phase
Power Factor	>0.99	>0.99	0.9 lead - 0.9 lag
BATTERY MODE OUTPUT (AC)			
Output Voltage	220 VAC	220VAC	230 VAC (P-N)/400 VAC (P-P)
Output Frequency	50 Hz	50 Hz	50 Hz / 60 Hz
Output Waveform	Pure Sine Wave	Pure Sine Wave	Pure Sine Wave
Efficiency (DC to AC)	90%	87%	91%
BATTERY & CHARGER			
Nominal DC Voltage	48 VDC	96 VDC	48 VDC
Maximum Charging Current	25 A	20 A	200 A
PHYSICAL			
Dimension. D X W X H (mm)	420 x 415 x 170	700 x 540 x 190	622 x 500 x 167.2
Net Weight (Kgs)	15.5	25	45
INTERACE			
Communication Port	RS-485 / RS-232 / USB	Optional RS-232	RS-232/USB
Intelligent Slot	Optional SNMP card or Modbus card available	-	Optional SNMP, Modbus and AS-400 cards available
ENVIRONMENT			
Humidity	0 - 90% RH (No condensing)	0-90% RH (Non-condensing)	0 - 90% RH (No condensing)
Operating Temperature	0-40°C	0-45°C	- 10 to 55° C (Power derating above 50°C)
Altitude	0 - 1000 m*	0 - 1000 m*	0 - 2000 m*

*Power derating 1% every 100 m when altitude is over 1000m & 2000 m respectively.
*Product specifications are subject to change without further notice.

swelect
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RESCO certification



ESCO certification



ISA TECHNOLOGY AWARD



Largest number of Rooftop Installation in year 2016



Softdisk Awards (2016-17)



ISO 9001:2015



ISO 18001:2007



ISO 14001:2015